Air Regulators

309924H

ENG

Important Safety Instructions.
Read all warnings and instructions in this manual.
Save these instructions.

Part No.	Description	Inlet	Outlets	Handle	Maximum Inlet Pressure psi (MPa, bar)	Maximum CFM at 50 psi (.34 MPa, 3.4 bar
234389	Air Regulator with gauge, self relieving	1/4 in. npt(m)	1/4 in. npt(f)	knob	160(1.1, 11)	22 CFM
234434	Air Regulator with gauge, self relieving	1/4 in. npt(m)	1/4 in. npt(f)	knob	160(1.1, 11)	35 CFM
234390	Mini Air Regulator with gauge	1/4 in. npt(f)	1/4 in. npt(f)	knob	160(1.1, 11)	22 CFM
24H419	Mini Air Regulator with gauge	1/4 in. BSP(f)	3/8 in. BSP(f)	Knob	150(1.0, 10)	22 CFM
24H420	Mini Air Regulator with gauge	1/4 in. npt(f)	3/8 in. npt(f)	Knob	150(1.0, 10)	22 CFM
						at 100 psi (0.7 MPa, 7 bar
234391	Air Regulator with 2 regulated outlets, 1 unregulated outlet	3/8 in. npt(f)	1/4 in. npt(f)	tee	175(1.2, 12)	50 CFM
234392	Air Regulator with 3 regulated outlets	3/8 in. npt(f)	1/4 in. npt(f)	tee	175(1.2, 12)	50 CFM
234393	Air Regulator 234391 with gauge and shutoff valve, 1 regulated outlet, 1 unregulated outlet	3/8 in. npt(m)	1/4 in. npt(f)	tee	160(1.1, 11)	50 CFM
234394	Air Regulator 234392 with gauge and shutoff valve, 2 regulated outlets	3/8 in. npt(m)	1/4 in. npt(f)	tee	160(1.1, 11)	50 CFM

Installation

Before installing air line components, blow out the pipe line to remove debris. Be sure air to the regulator is clean. Erratic operation or loss of regulation is usually caused by dirt in the regulator.

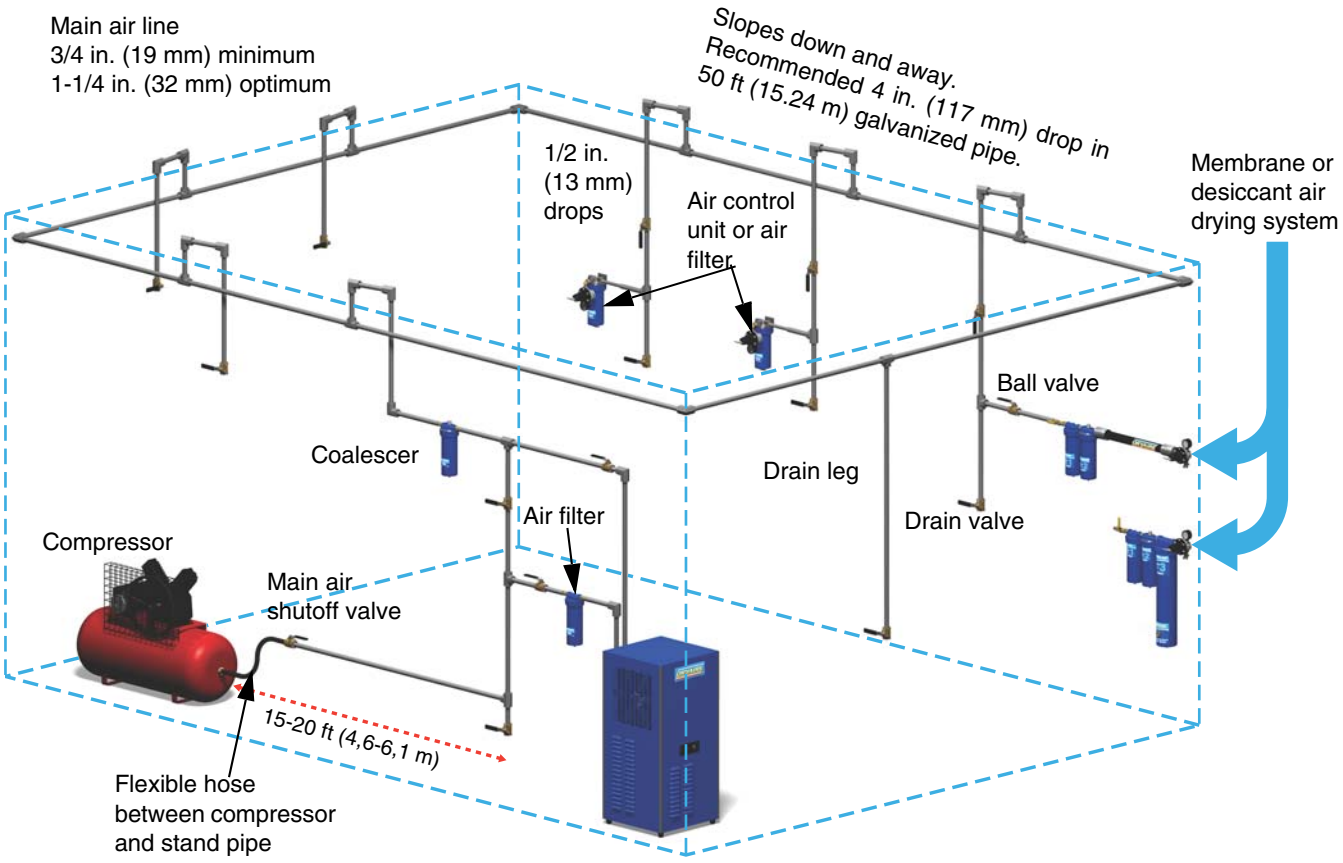
Use pipe compound or tape sparingly and only on male threads. Locate the regulator as close as possible to the equipment it serves.

Install a main air shutoff valve upstream from the air controls to isolate them for service.

Shop Air Piping Layout

NOTE:

- Main Air Line stand pipe should not be smaller than compressor outlet size.
- A minimum of 25 ft (7.62 m) from compressor to first filter outlet is required to cool air [50 ft. (15.24 m) optimum].



Minimum Pipe Size Recommendations			
Compressor		**Main Air Line**	
HP	**CFM**	**Length ft (m)**	**Size in. (mm)**
1-1/2 - 2	6 - 9	any	3/4 (19)
3 - 5	12 - 20	Up to 200 (61)	3/4 (19)
		Over 200 (61)	1 (25.4)
5 - 10	20 - 40	Up to 100 (30.5)	3/4 (19)
		Over 100-200 (30.5-61)	1 (25.4)
		Over 200 (61)	1-1/4 (31.8)
10 - 15	40 - 60	Up to 100 (30.5)	3/4 (19)
		Over 100-200 (30.5-61)	1-1/4 (31.8)
		Over 200 (61)	1-1/2 (38.1)

		Air Pressure Drop Through Hose, by Hose Length and ID Temperature = 68° F					
	Inlet Pressure	**4 ft (1.22 m)**	**10 ft (3.05 m)**	**15 ft (4.6 m)**	**20 ft (6.1 m)**	**25 ft (7.62 m)**	**50 ft (15.24 m)**
Air Hose ID 1/4 in. (6.4 mm)							
psi (kPa, bar) SCFM (ft^3/min)	40 (276, 2.8)	6 (41, .4) 14	8 (55, .6) 10	9.5 (66, .7) 9	11 (76, .8) 8	12.75 (88, 0.9) 8	24 (165, 1.7) 8
	50 (345, 3.4)	7.5 (52, .5) 17	10 (69, .7) 12	12 (83, .8) 11	14 (97, 1) 10	16 (110, 1.1) 9	28 (193, 1.9) 9
	60 (414, 4.1)	9 (62, .6) 20	12.5 (86, .9) 14	14.5 (100, .1) 12	16.75 (115,1.2) 11	19 (131, 1.3) 11	31 (214, 2.1) 10
	70 (483, 4.8)	10.75 (74, .7) 22	14.5 (100, 1) 16	17 (117, 1.2) 14	19.5 (134, 1.3) 13	22.5 (155, 1.6) 12	34 (234, 2.3) 11
	80 (552, 5.5)	12.25 (84, .8) 25	16.5 (114,1.1) 18	19.5 (134, 1.3) 16	22.5 (155, 1.6) 15	25.5 (176, 1.8) 14	37 (255, 2.6) 12
	90 (621, 6.2)	14 (97, 1) 28	18.75 (129, 1.3) 20	22 (152, 1.5) 17	25.25 (172, 1.7) 16	29 (200, 2) 15	39.5 (169, 2.7) 12
Air Hose ID 5/16 in. (7.9 mm)							
psi (kPa, bar) SCFM (ft^3/min)	40 (276, 2.8)	2.25 (16, .2) 15	2.75 (19, .2) 10	3.25 (22, .2) 9	3.5 (24, .2) 8	4 (28, .3) 8	8.5 (59, .6) 8
	50 (345, 3.4)	3 (21, .2) 19	3.5 (24, .2) 12	4 (28, .3) 11	4.5 (31, .3) 10	5 (34, .3) 9	10 (69, .7) 9
	60 (414, 4.1)	3.75 (26, .3) 22	4.5 (31, .3) 15	5 (34, .3) 13	5.5 (38, .4) 11	6 (41, .4) 11	11.5 (79, .8) 10
	70 (483, 4.8)	4.5(31, .3) 26	5.25 (36, .4) 17	6 (41, .4) 15	6.75 (47, .5) 13	7.25 (50, .5) 12	13 (90, .9) 12
	80 (552, 5.5)	5.5 (38, .4) 30	6.25 (43, .4) 19	7 (48, .5) 17	8 (55, .6) 15	8.75 (60, .6) 14	14.5 (100, 1) 13
	90 (621, 6.2)	6.5 (45, .4) 34	7.5 (52, .5) 22	8.5 (59, .6) 19	9.5 (66, .7) 17	10.5 (72, .7) 16	16 (110, 1.1) 14

Pressure Adjustment

Do not exceed the Maximum Incoming Air Pressure of the equipment. Over pressurizing can cause component rupture and serious injury.

Turn clockwise to increase air pressure. Turn counterclockwise to decrease air pressure.

NOTE: Push in the knob of Part No. 234389, 234390, 24H419, and 24H420 air regulators to lock their pressure setting.

Pressure Relief Procedure

To avoid injury, relieve air and fluid pressure before checking, cleaning, or repairing the equipment.

The following is a basic pressure relief procedure. Be sure to follow the specific pressure relief procedure in your spray gun and/or fluid supply equipment manuals.

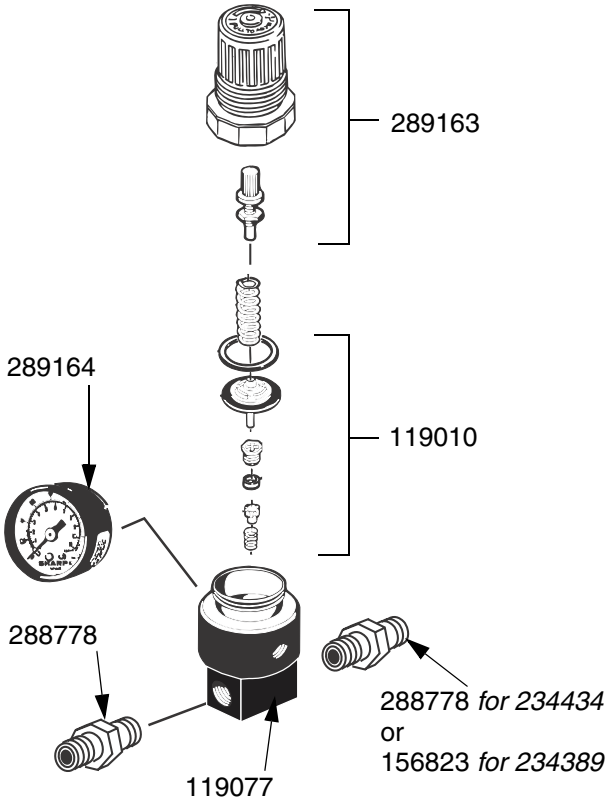
1. Close the main air shutoff valve.
2. Trigger the gun or dispense valve and open any drain valves to relieve pressure.

Repair

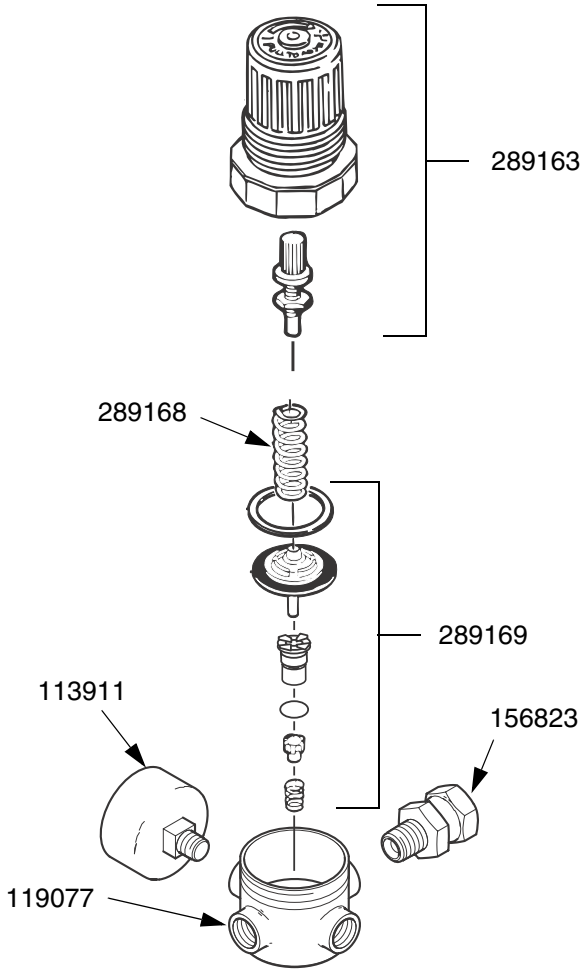
1. Follow **Pressure Relief Procedure**, above.
2. Disassemble the regulator. Refer to **Parts** drawings.
3. Wash parts with household soap and water or denatured alcohol.
4. Wipe parts dry with a clean, soft, dry rag. Use compressed air to blow dirt and contaminants out of the regulator body.
5. Inspect parts for wear or damage. Replace damaged parts.
6. Reassemble the regulator.

Parts

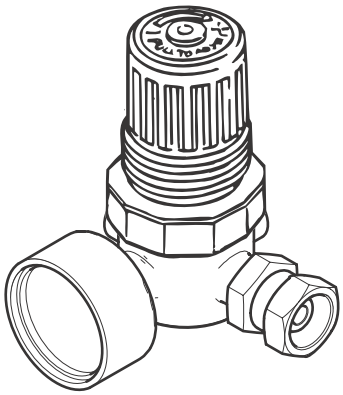
Part No. 234389 and 234434



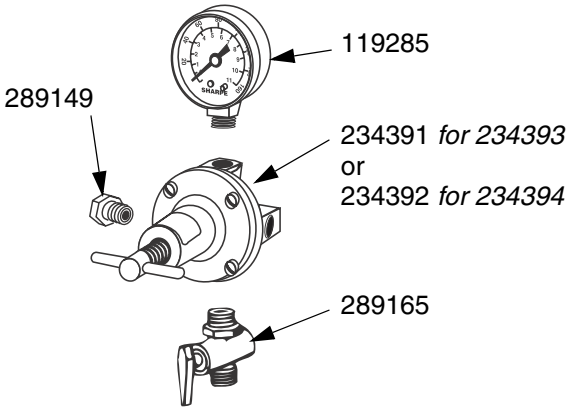
Part No. 234390



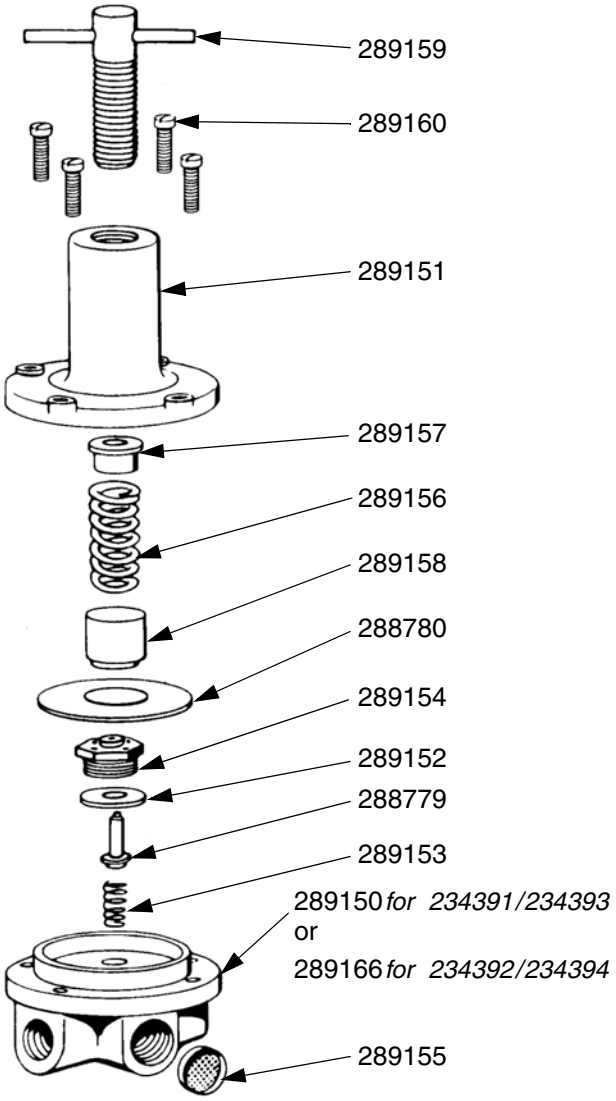
Part No. 24H419 and 24H420



Part No. 234393 (1 regulated, 1 unregulated outlet) **and 234394** (2 regulated outlets)



Part No. 234391 (2 regulated, 1 unregulated outlet) **and 234392** (3 regulated outlets)



**Repair Kit 289167 available for models 234391 & 234392.*

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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Original instructions. This manual contains English. MM 309924

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